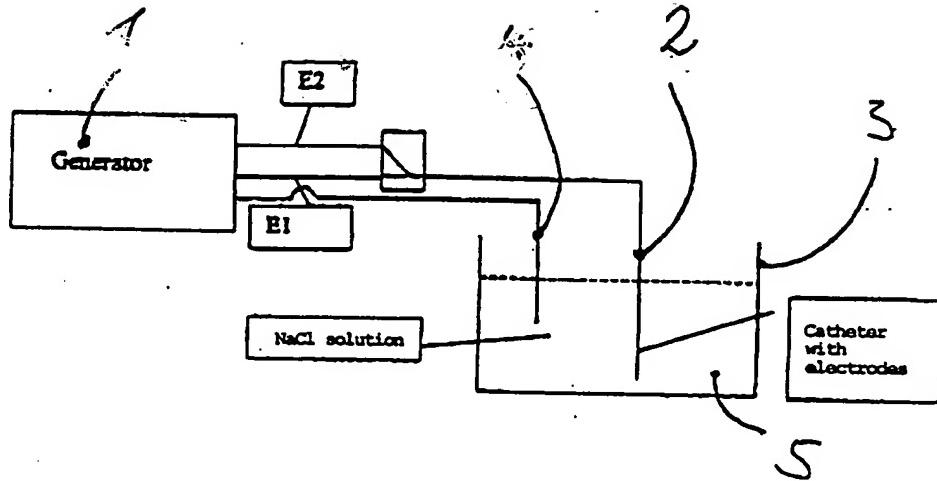
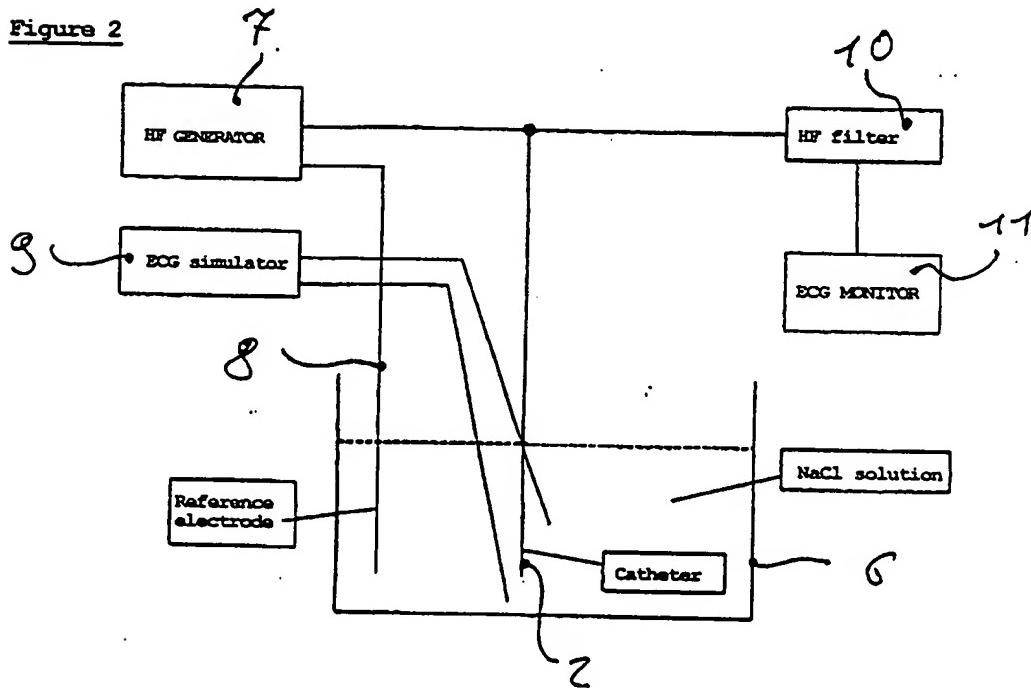


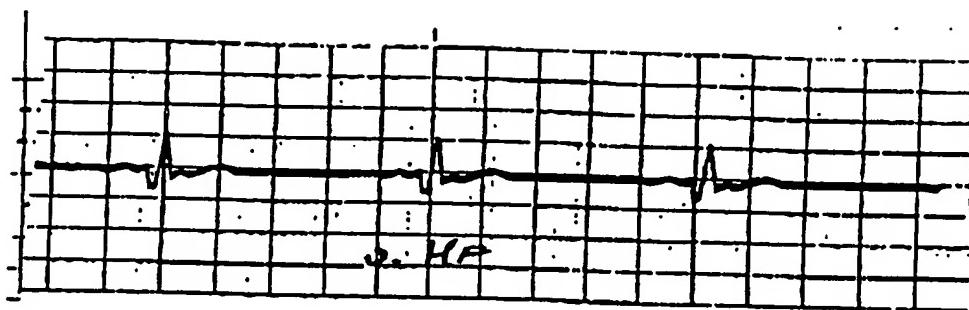
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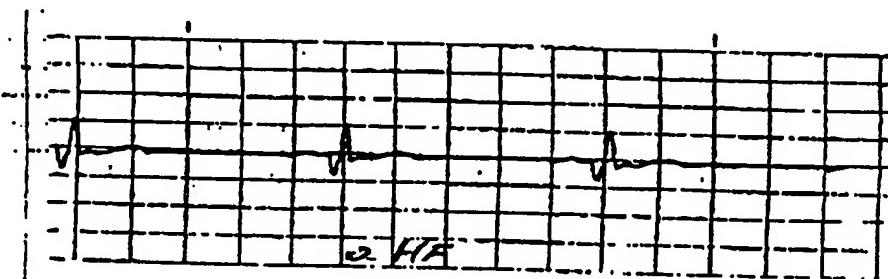
Figure 1Figure 2

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Figure 3

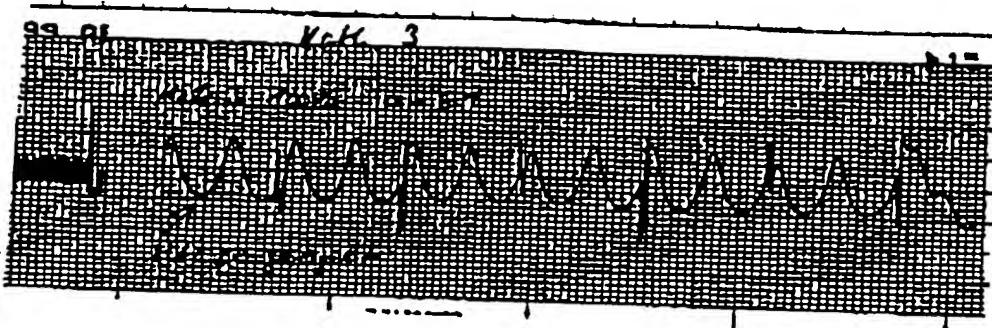
Mapping signal before electrode treatment without applied high-frequency energy

Figure 4

Mapping signal after electrode treatment without applied high-frequency energy

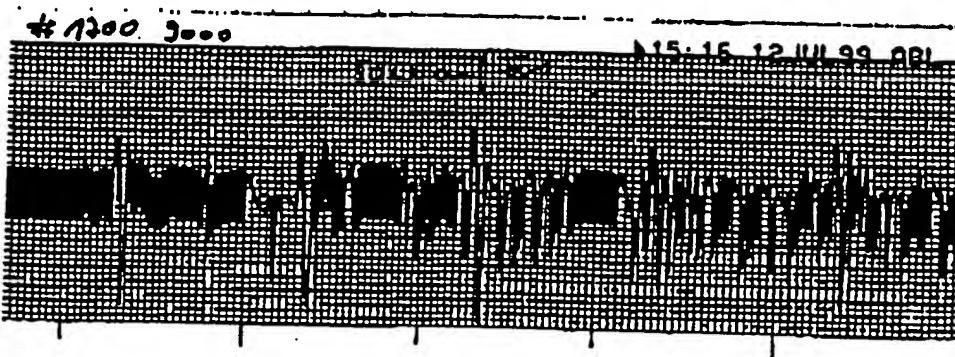
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Figure 5

Interference in the simulated ECG signal in the case of fast, non-pulsed power regulation of the output high-frequency energy for a non-treated ablation catheter

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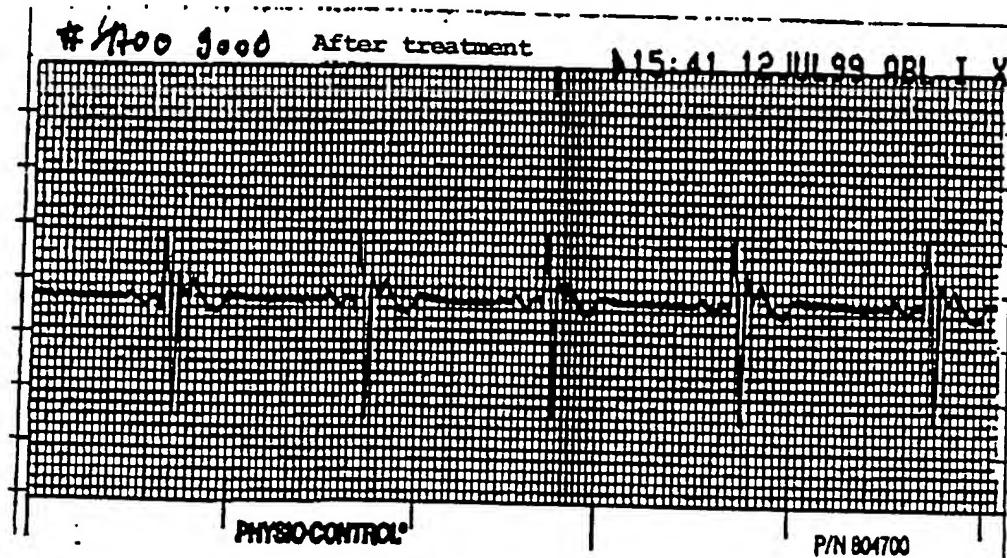
Figure 6

Interference in the simulated ECG signal in the case of fast, pulsed power regulation of the output high-frequency energy for a non-treated, quadrupole ablation catheter with cylindrical platinum ablation electrodes each 4 mm long

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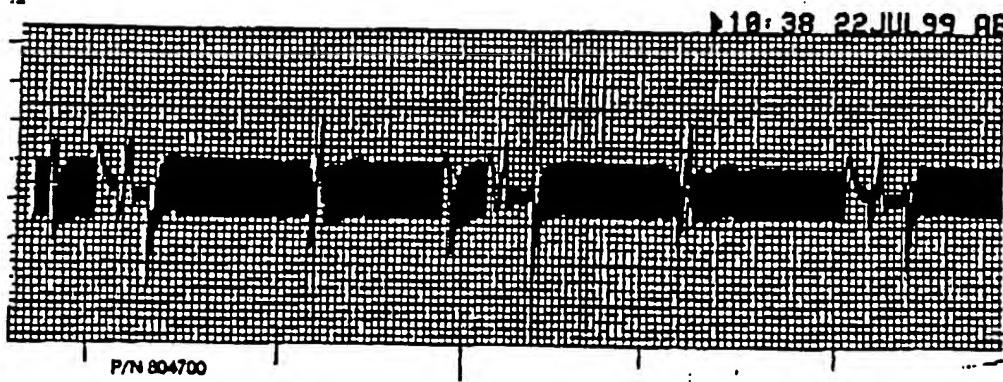
Figure 7



Simulated ECG signal in the case of fast, non-pulsed power regulation of the output high-frequency energy for the quadrupole ablation catheter with cylindrical platinum ablation electrodes each 4 mm long, from Figure 6 after its treatment

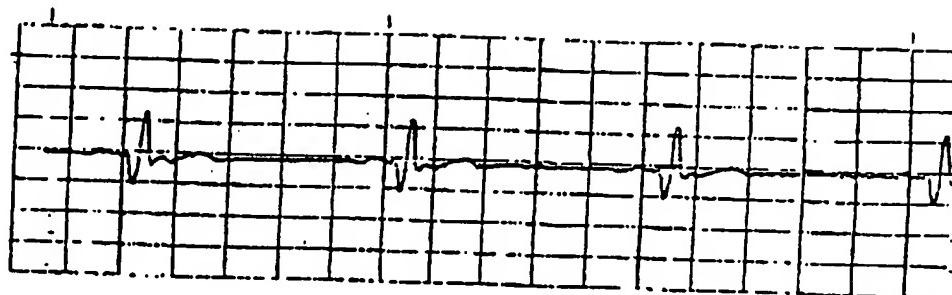
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Figure 8



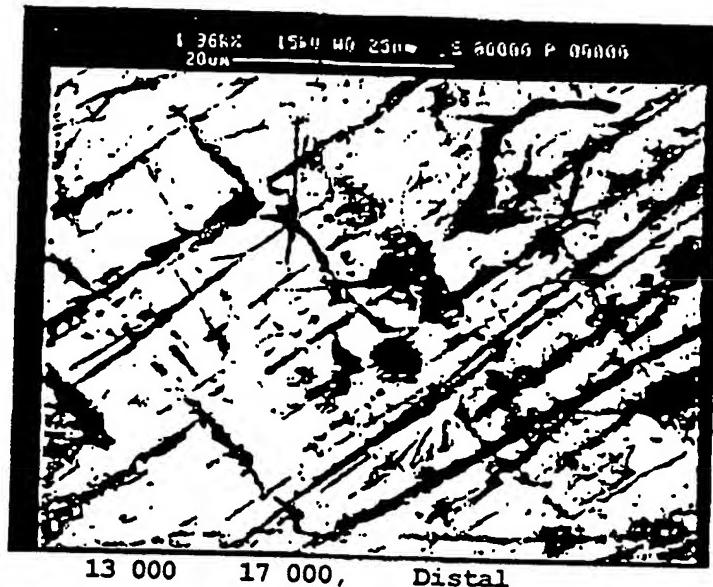
Interference in the simulated ECG signal in the case of fast, pulsed power regulation of the output high-frequency energy for a non-treated ablation catheter with a cylindrical platinum ablation electrode 4 mm long, and three further mapping electrodes

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Figure 9

Simulated ECG signal in the case of fast, pulsed power regulation of the output high-frequency energy for the non-treated ablation catheter from Figure 8 with a cylindrical platinum ablation electrode 4 mm long, and three further mapping electrodes after its treatment

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Figure 10

Electron microscope photograph of the platinum surface of the ablation electrode of a non-treated ablation catheter

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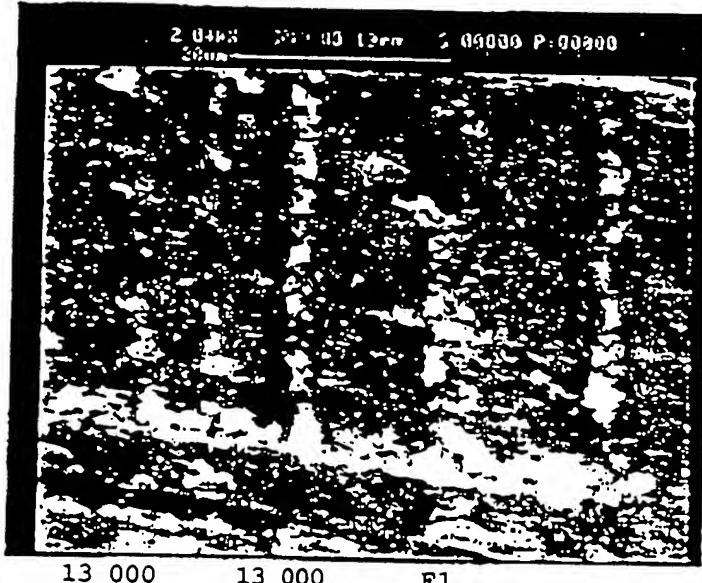
Figure 11



13 000 17 000, Distal

Electron microscope photograph of the platinum surface of the ablation electrode of the non-treated ablation catheter from Figure 10

Figure 12



13 000 13 000, E1

Electron microscope photograph of the platinum surface of the ablation electrode of the ablation catheter from Figure 10

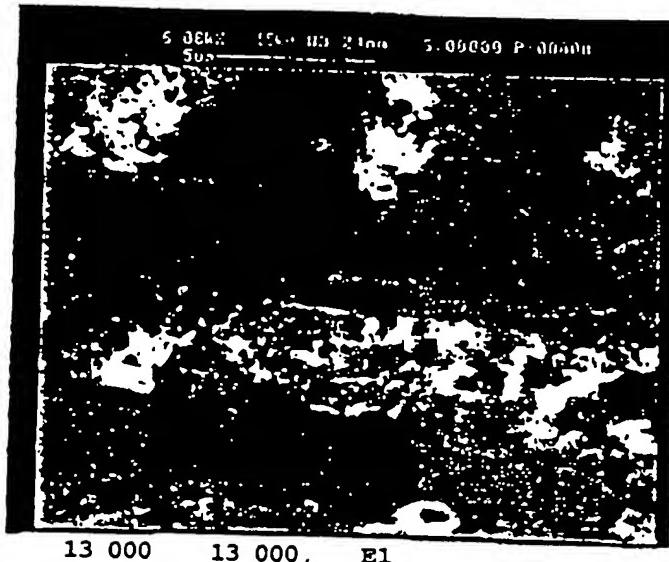
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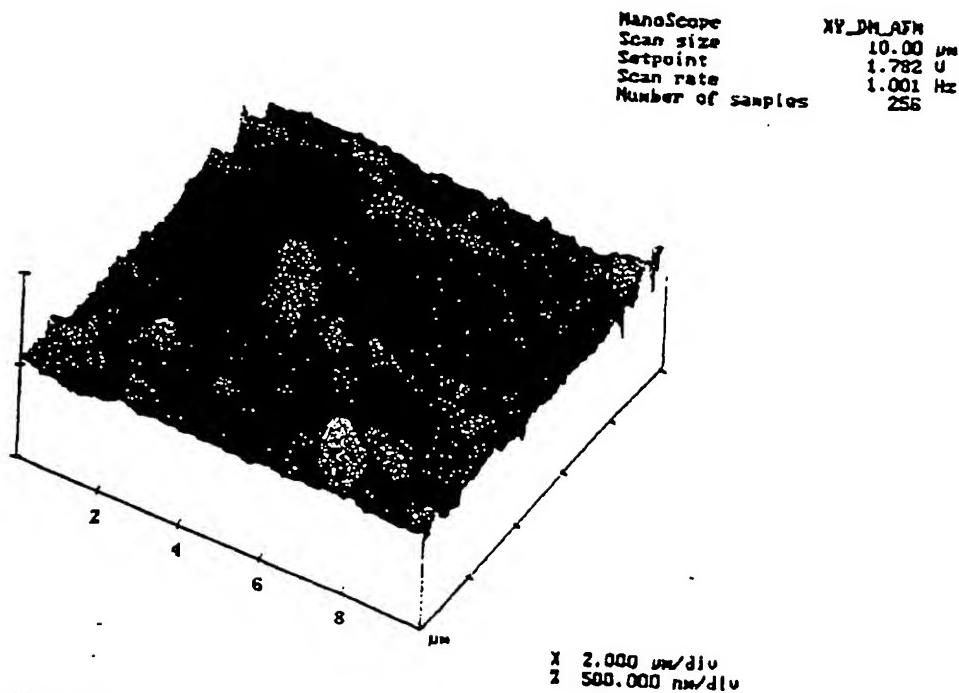
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Figure 13



Electron microscope photograph of the platinum surface of the ablation electrode of the ablation catheter from Figure 10

Figure 14



Force microscopic plot of a 10 times 10  $\mu\text{m}$  surface region of an untreated platinum ablation electrode

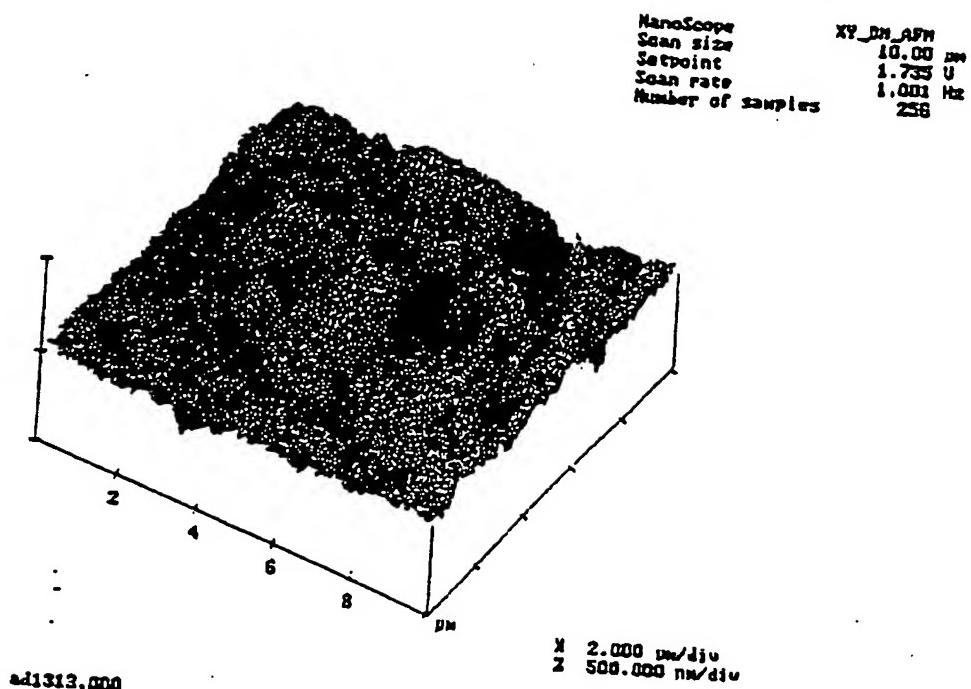
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Figure 15



Force microscopic plot of a 10 times 10  $\mu\text{m}$  surface region of a treated platinum ablation electrode

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